

REMARKS

Applicant submits this Amendment in reply to the Office Action mailed July 2, 2004.

By this Amendment, Applicants have amended claim 13 and a portion of claim 15 to further define the claimed invention, and amended claims 14-16 to correct and inadvertent dependency error. The originally-filed specification, claims, abstract, and drawings fully support the subject matter of amended claims 13-16. No new matter is introduced. Claim 13 is the sole independent claim.

Before entry of this Amendment, claims 13-16 were pending in this application. After entry of this Amendment, claims 13-16 are still pending in this application.

On page 2 of the Office Action, the disclosure was objected to. Applicants have corrected the specification as suggested by the Examiner. Accordingly, withdrawal of the objection is respectfully requested.

On pages 2-5 of the Office Action, claims 13, 15, and 16 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,868,848 to Tsukamoto ("Tsukamoto") in view of U.S. Patent No. 5,411,624 to Hirano et al. ("Hirano"); claims 13, 15, and 16 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tsukamoto in view of U.S. Patent No. 5,748,434 to Rossman et al. ("Rossman"); and claim 14 was rejected under 35 U.S.C. §103(a) as being unpatentable over Tsukamoto in view of Hirano or Rossman and in further view of U.S. Patent No. 5,919,332 to Koshiishi et al. ("Koshiishi"). Applicants respectfully traverse these rejections.

None of the cited references, either individually or in combination, disclose the claimed invention. For example, claim 13 recites a "plasma processing apparatus that

performs plasma processing on a workpiece placed on an electrode provided inside a processing chamber” including, among other aspects, “a thermal conductivity adjusting member, for adjusting a thermal conductivity between the electrode and the electrically conductive ring body, provided between said electrode and said electrically conductive ring body.” None of the cited references, either individually or in combination, disclose or suggest at least this aspect of the claimed invention either alone or in combination with the other aspects of the claimed invention.

Pages 3 and 4 of the Office Action admit that “Tsukamoto fail to teach a thermal conductivity adjusting member provided between the electrode 5 and the electrically conductive ring body 71.” The Office Action then cites Hirano and Rossman to remedy this alleged deficiency of Tsukamoto. Applicants respectfully disagree. The Office Action seems to allege that at least one of the two separable rings 22, 24 of Hirano corresponds to the thermal conductivity adjusting member. However, Hirano discloses that

[a] conductive cathode ring 22 made of, e.g., SiC or amorphous carbon is placed on the upper surface of the first susceptor 12 to extend along the outer circumference of the wafer 10, and an auxiliary ring 24 made of a conductive material, e.g., SiC or amorphous carbon is placed on the upper surface of the cathode ring 22. The cathode and auxiliary rings 22 and 24 can be made integrally with each other.

FIG. 2 is an enlarged view showing the cathode and auxiliary rings 22 and 24. When the auxiliary ring 24 is placed on the upper surface of the cathode ring 22, as shown in FIG. 2, the upper surface of the auxiliary ring 24 is set higher than the etching surface of the wafer 10, so that the strength of the high-frequency electric field in the space above the auxiliary ring 24 becomes larger than that of the electric field in the space above the wafer 10.

(Col. 5, lines 45-61). The aforementioned portion of Hirano does not even mention thermal conductivity, and thus does not disclose that either of the two separable rings

22, 24 are a thermal conductivity adjusting member. Moreover, Hirano does disclose that either any of the two separable rings 22, 24 is “for adjusting a thermal conductivity between the electrode and the electrically conductive ring body” as recited in claim 13.

With regard to Rossman, even assuming *arguendo* that first shield member 60 and second shield member 62, in whichever order, correspond to the electrically conductive ring body and the thermal conductivity adjusting member of claim 13, Rossman does not disclose that either first shield member 60 or second shield member 62 is “for adjusting a thermal conductivity between the electrode and the electrically conductive ring body” as recited in claim 13. Instead, Rossman discloses that first shield member 60 and second shield member 62 have different thermal masses, and that “the high ratio of exposed surface area to thermal mass of second shield member 62 causes member 62 to be heated to a substantially high temperature from the RF energy chamber. (Col. 5, lines 31-44). Accordingly, Applicants respectfully request the withdrawal of the Section 103(a) rejections based on Tsukamoto, Hirano, and Rossman.

With regard to the rejection of claim 14, Applicants assert that Koshiishi does not remedy the aforementioned deficiencies of Tsukamoto, Hirano, and Rossman. Accordingly, Applicants assert that claim 14 is patentable for at least the reasons that independent claim 13, from which claim 14 depends, is patentable, and thus respectfully request withdrawal of the Section 103(a) rejection based on Tsukamoto, Hirano, Rossman, and Koshiishi.

Applicant further submit that claims 14-16 depend from independent claim 13, and is therefore allowable for at least the same reasons that the independent claim is allowable. In addition, at least some of the dependent claims recite unique

combinations that are neither taught nor suggested by the cited references and therefore at least some also are separately patentable.

In view of the foregoing remarks, this claimed invention, as amended, is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicant therefore requests the entry of this Amendment, the Examiner's reconsideration and reexamination of the application, and the timely allowance of the pending claims.

The Office Action contains characterizations of the claims and the related art with which Applicant does not necessarily agree. Unless expressly noted otherwise, Applicant declines to subscribe to any statement or characterization in the Office Action.

In discussing the specification and claims in this Amendment, it is to be understood that Applicant is in no way intending to limit the scope of the claims to any exemplary embodiments described in the specification or abstract and/or shown in the drawings. Rather, Applicant is entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation, and applicable case law.

If there is any fee due in connection with the filing of this Amendment, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

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